

Mint of the United States at Philadelphia,

MELTING AND REFINING DEPARTMENT,

Philadelphia, 24 Aug., 1882

approximate value of Coinage of U.S. in Gold
and Silver from the beginning in 1792 to 30th June 1882

Spec. Grav. Wt. Cub. Inch. Measure of \$ one Million

Gold	17.25	4354.9 grains	5924.36 C.I.
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Silver	10.30	2602.84 "	158481. "
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Total Issue, value		Measure
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Gold	\$ 1300,000,000 =	4,457 C.F.
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Silver	335,000,000 =	30,724 "
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Size of the Cube of the preceding capacity.

Gold	16 $\frac{1}{2}$ ft. on a side, nearly.
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Silver	31 $\frac{1}{3}$ ft. — " — " —
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The above calculations are based on one cubic
inch of Water, weighing 252.458 Grains, at 62° Fahr.
and 30 inches Barom.

J. C. Booth

M.C.R.

1 C.I. water @ 62° Fahr. & 30 in. Bar. = 252.458 log. = 2.4021892
 sp. gr. of gold coin (U.S.) rolled = 19.25 log = 1.2367891
 1 C.I. Gold coin = 4354.9005 grains log = 3.6389783

4354.9005 grns. gold coin contain $4354.9 \times 19.25 = 391941$ grns gold pure
 grns. water sp. gr. pure gold

$252.458 \times 19.25 = 4847.1936$ = grns. in 1 C.I. pure gold

or, l. 252.458 = 2.4021892 }
 l. 19.25 = 1.2367891 } = 3.6389783 = log. 4847.1933

(\$100) One dollar gold = 25.8 \$1000 = 25800. + l. 4.4116197
 . 4354.9 - l. 3.6389782
~~\$1000~~ = l. 5.92436 = 0.7726415

\$1,000,000 gold coin = 592436 C.I. =

l. $\frac{592436}{1728} = \frac{3.7726415}{-3.2375437} = 0.5350978 = l. 3.42845$ C.F.

\$1300,000,000. gold coin = $\frac{0.5350978}{\frac{3.1139434}{3.6490412}} = 4457$. C.F. = $(16.4569)^3$

sp. gr. silver. coin = 10.3 $252.458 \times 10.3 = 2602.84$ grns in C.I. Silver coin.

Wt. of one Doll. = 412.5 grns. of \$1000 = 412500 grns. l. = $\frac{5.61544240}{l. 2602.84} = \frac{3.4154475}{2.1999765}$
 l. of 158.481 C.I. =

\$1,000,000 silver coin = $\frac{158481}{1728}$ C.I. l. = $\frac{5.1999765}{\frac{3.2375437}{1.9624328}} = l. 91.7134$ C.F.
 1728 C.F. = 1 C.F.

\$335 millions. l. = $\frac{2.5250448}{4.4874776} = l. 30724$ C.F. = (31.320^3)

\$1.00 = 412.5 grns

$\frac{.9}{371.25}$ grns. pure silver

Sp.gr. of pure silver = 10.45

1 C.I. pure silver = $\frac{252.458}{10.45} = \frac{2.4021892}{\frac{11.0191163}{3.4213055}} = l. 2638.21$ grains